

AdmoduNet

Nomination planning and real-time assurance optimization for gas transportation and distribution with advanced pipeline network simulation.

Improve the technical and economic efficiency of your gas transportation and distribution operations of your pipeline networks:

- ensure feasible nominations, balanced demand/supply, through automatic simulated optimization with predicted dynamic constraints
- dispatch in real time, predict deviations from committed nominations and optimize adjustments within unexpected constraints
- optimize costs and convert physical allocations in real time into commercial terms

Capabilities

- simulate nominations from commercial point of view and convert these to balanced dispatch delivery/supply targets
- dynamically simulate gas transport through complex pipeline networks, taking into consideration all their elements (pipes, compressors, separators, other controls and equipment, in several modes: (a) forward (supply and control points known used to predict delivery); (b) reverse (delivery set used to plan supply need); (c) optimized (supply and delivery set used to calculate optimal control setpoints); (d) auto (rolling forward simulation and comparison to nomination targets used to predict deviations from plan and adjust operation to close the gap)
- assure operational safety by simulating min/max gas volume levels in the pipeline network dynamically
- optimize costs, embedded in simulations, for nomination plans and, in real-time, when assuring their execution
- report accurate supply/delivery allocation in real time and convert into commercial terms



Technical-commercial efficiency for Gas Transportation and Distribution Operations

- **Assure commercial commitments**
- Optimize costs, reduce risks
- Steadily eliminate disruptions
- Significantly ease and speed up back allocation process

Improve seamlessly nomination planning and execution assurance

Dynamic simulation of gas propagation through complex pipeline networks

- **Automatically determine supply need for delivery targets**
- Automatically predict and prevent operational problems
- Back-allocate in real-time

Intuitive and Smart Planning & Dispatch Work Environment

Benefits

1. Delivery/supply imbalance decreased by 10-15% annually;
2. Delivery forecasting accuracy improved by 55% in the first year and augmenting annually;
3. Operational regularity increased by 25% annually in the first 3 years;
4. Reduced Overall Costs in operations and maintenance by 5-10% annually;
5. Operational problems reduced by 25-30% annually in the first 5 years;
6. 0 technical supply safety issues and HSE incidents within the first year;
7. Unplanned Shutdowns reduced by 85% within 2 years;
8. Technical and commercial back allocation supply/delivery process duration reduced from weeks to 3 days within one year
9. Optimize gas transportation and distribution service while developing pipeline network infrastructure

15% less delivery/supply imbalance

- **55% better delivery forecast accuracy**
- 10% less costs
- 30% less operational problems
- Optimized operations while pipeline network development in progress

Back-allocation process reduced to 3 days

Implementing the advanced software for gas propagation simulation in pipeline networks, delivered by NetGas in the dispatch center of our customer – the sole operator of the complex national offshore natural gas pipeline network in Malaysia – we enabled the users there to perform from day one their mission critical task of operating the natural gas gathering and blending smoothly and reliably.

- Andy Leo, CEO, Protechnology

Using Microsoft Azure Platform to build predictive and prescriptive simulations, the users are equipped to understand fast potential critical gas propagation disruptions in pipeline networks and guided in taking the optimal operational, commercial and economic decisions, ensure commitment realization and significantly increase operational, commercial and financial performance



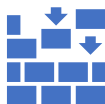
Automatic Prediction of Operational Problems and Dynamic Optimized Prescription of Controls to Hit Targets

- Dynamically alert and visualize all asset problems ranked in the order of their criticality
- Automatically resimulate optimized control setpoints to achieve nomination commitments and minimize costs
- Automatically calculate technical end-of-day allocations and convert them to commercial terms



Every year 15% less supply/delivery imbalance

- 30% less risk for gas propagation disruption
- 25% less risk for dispatchers not to meet nomination commitments, because better plans and real-time optimization
- Each solution to operational problems 5 times less expensive



Easy to install and adopt

- Faster to install than other software solutions and with minimum invasion in the existing IT ecosystem
- One shop stop for combined IT, software customization and business change, with minimum invasion into existing business procedural framework
- Deliverable as paid service, solution purchase or hybrid

Your operations are often hit by unexpected disruptions and imbalances, which take your dispatchers by surprise, hinder you meeting your commercial obligations and bring your economic performance down?

AdmoduNet: Our promise to you

Consider reaching full supply/delivery balance and breakthrough operational performance with an innovative, unique, but already proven approach from NetGas R&D enabling you to optimize dispatch and prevent operational problems

An offer to get you started

If you are willing to spend one hour with us, we will show you in a demo how ActumPro works, how other companies implemented and operationalized it and what benefits they achieved

Tangible Benefits / Desired Outcomes

- Continuously reduce the supply/delivery imbalance, costs and improve back-allocation accuracy and speed with gas propagation simulation and optimization in AdmoduNet
- Accelerate your AdmoduNet solution's operationalization by running it as a service from Microsoft Azure
- Trust the reliability of top Microsoft Azure Platform capabilities representing AdmoduNet's foundation

Why NetGas?

NetGas delivers advanced and performant solutions and consulting services, addressing core challenges in a variety of industrial environments, aiming significant operational and economic efficiency improvements. Embedding deep engineering knowledge into AI and analytics technologies, NetGas software based business solutions services distil huge amounts of various types of data and information, automates dynamic procedures and enables you to make best knowledge based decisions.